

NL1 :

GGCTCCTCATCTGGAACACCTCGGGTCACCCCCGACAACGGTGGTGGGAGGGAGAGCGGC	60
CTCCTCCTCCCTGGTGGGGCCTGTCTGGGTGAAGCCCCTCTGTTCCCGAGGATCGTCCCA	120
ACCCCCAGCCGGGTGCTCCGAGCCATGGCCGACACCÂTCTTCGGCAGCGGGAATGATCAG	180
M A D T I F G S G N D Q	12
TGGGTTTGCCCCAATGACCGGCAGCTTGCCCTTCGAGCCAAGCTGCAGACGGGCTGGTCC	240
W V C P N D R Q L A L R A K L Q T G W S	32
GTGCACACCTACCAGACGGAGAAGCAGAGGAGGAAGCAGCACCTCAGCCCCGGCGGAGGTG	300
V H T Y Q T E K Q R R K Q H L S P A E V	52
GAGGCCATCCTGCAGGTCATCCAGAGGGCAGAGCGGCTCGACGTCC'TGGAGCAGCAGAGA	360
E A I L Q V I Q R A E R L D V L E Q Q R	72
ATCGGGCGGCTGGTGGAGCGGCTGGAGACCATGAGGCGGAATGTGATGGGGAAACGGCCTG	420
I G R L V E R L E T M R R N V M G N G L	92
TCCCAGTGTCTGCTCTGCGGGGAGGTGCTGGGCTTCCTGGGCAGCTCGTCGGTGTCTGC	480
S Q C L L C G E V L G F L G S S S V F C	112
AAAGACTGCAGGAAGGTCTGGAAGAGGTCTGGGGGCTGGTTCTACAAAGGGCTCCCCAAG	540
K D C R K V W K R S G A W F Y K G L P K	132
TATATCTTGCCCCTGAAGACCCCTGGCCGAGCTGATGAGCCCCAGTTCCGACCTTGGCCC	600
Y I L P L K T P G R A D E P Q F R P W P	152
ACGGAACCGGCAGAGCGAGAGCCCAGAAGCTCTGAGACCAGCCGCATCTACACGTGGGCC	660
T E P A E R E P R S S E T S R I Y T W A	172
CGAGGAAGAGTGGTTTCCAGTGACAGTGACAGTGACTCGGATCTTAGCTCCTCCAGCCTA	720
R G R V V S S D S D S D S D L S S S S L	192
GAGGACAGACTCCCATCCACTGGGGTCAGGGACCGGAAAGGCGACAAACCCTGGAAGGAG	780
E D R L P S T G V R D R K G D K P W K E	212
TCAGGTGGCAGCGTGGAGGCCCCCAGGATGGGGTTCACCCAACCCGCGGGCCACCTCTTT	840
S G G S V E A P R M G F T Q P A G H L F	232

GGGTTGCAGAGCAGCCTGGCCAGTGGTGAGACGGGCACAGGCTCTGCTGACCCGCCAGGG	900
G L Q S S L A S G E T G T G S A D P P G	252
GGAGGGACAGGCTCTGCTGACCCGCCAGGGGGACCCCGCCCCGGGCTGACCCGAAGGGCC	960
G G T G S A D P P G G P R P G L T R R A	272
CCGGTAAAAGACACACCTGGACGAGCCCCCGCTGCTGACGCAGCTCCAGCAGGCCCCCTCC	1020
P V K D T P G R A P A A D A A P A G P S	292
AGCTGCCTGGGCTGAGGTGTCTGGTGCCTGGAACAGACTTCCCTGTGGAGGATTCCTGCC	1080
S C L G *	296
AGACCCTGCCCCGGCTCCTCCCTGACCGGTCTTGTGCCCTCACCAGACACCCTGTTGGCC	1140
ATGACTCAACAAACCAGTGTTGGGAGCCGTCTGCCTCCCCAGCTCAGTGCCTTTCTGCAC	1200
CCCTTCTCTCCTGGGGAGCTGTCTGCATCCGCCACCCCCCTCCAACCACTGCCCTCAGCCC	1260
CCGACCTTATTTATTACCCTCCCCCTCCACACCCCCAATCTACCTGGTGATGATTTTAAG	1320
TTTGCGCGTGTCTTGGGTGGGGCTGGGGGGTTTCCCACATGCAGTGTGAGAGGGGCCGCC	1380
CGGTGGGGCTATCTCCGTTGCTATATTAATGGCAAGACTAAATGAAACCTAGGGCACGGC	1440
CTCCGAAGCTGCGTGTGGCCCCCTTAGAGGTGAGCATCAGAGCCAGAGCAGTGAGGGGGAG	1500
ACTCACCCACCCTCTCCCTCTCCCTTCAGCTCTGGGAGGCAGGCGCAGTGCCCCCCTCCC	1560
ATGGGCTGGCCCAGGACCGCGGGTGAAACCTGGGTCTGTTTAGTTTCTTTGGTTTTTTGTA	1620
TGTTTGTTTGTTTTTGACACAGTCTCGCTTTGTTGCCCAGGCTGGGGTGACGTGGCACGA	1680
TCGCGGCTCACTGCAACCTCCACCTCCCGGGCTCAAGCGATTCTCTCACCTCAGCCTCCT	1740
GAGTAGGTGGGATTACAGATGCCCCGCCACCACACCCAGTTAATTTTTGTATTTTATAGAAG	1800
AGATGGGGTTTCTCCATGTTGGCCAGGCTGGTCTTGAACCTCCTGGTCTCAAGTGATCCGC	1860
CCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACCGCACCCAATCCTATT	1920
AGGTTTCTTTGAATCCCCTCATGGCCTGCCTGGTTTTTTGCTCAGCCTGTCTTCAGCTTGA	1980
GGAGCTGGGAAGCTCTGGTGGATGCTATGAACTCACTTGCTGAAGAGCAGCGTTCAGGTG	2040
CATCCCCAGCCAGGGCACGTGGCTCCCTCAGCCATGAATTCACTTCTCTTCAGGAGGTTT	2100
GGCTTGGCATGAAAATACTTCATTCAGAGTATGGGCAAATGCTTCTGGAAAACCCTTCCC	2160
TGAAGAGAGAGAACGTGTGTGTGTGTGTGCGGTGATCACACCCTCCCATCCTTCCTGCCTC	2220
CTGCCCCAAACCCCGGGTTCCTGGGTCTGGAAGGGCCTTCTCTCCAAGCTGGGAGCTCCT	2280

GGGCCCCCACCATTCACTTTTTGTCCTTGCTGCTGGCAAACAGTAAAGAACTCACTTTC 2340
 CCTGTGGCACGTTATGCTTCAGAATTAAACAATGAAGATTAAAA 2385

Fig. 2

CL1:

GGCTCCTCATCTGGAACACCTCGGGTCACCCCCGACAACGGTGGTGGGAGGGAGAGCGGC 60
 CTCCTCCTCCCTGGTGGGGCCTGTCTGGGTGAAGCCCCTCTGTTCCCGAGGATCGTCCCA 120
 ACCCCCAGCCGGGTGCTCCGAGCCATGGCCGACACCATCTTCGGCAGCGGGAATGATCAG 180
 M A D T I F G S G N D Q 12
 TGGGTTTGCCCCAATGACCGGCAGCTTGCCCTTCGAGCCAAGCTGCAGACGGGCTGGTCC 240
 W V C P N D R Q L A L R A K L Q T G W S 32
 GTGCACACCTACCAGACGGAGAAGCAGAGGAGGAAGCAGCACCTCAGCCCGGCGGAGGTG 300
 V H T Y Q T E K Q R R K Q H L S P A E V 52
 GAGGCCATCCTGCAGGTCATCCAGAGGGCAGAGCGGCTCGACGTCCTGGAGCAGCAGAGA 360
 E A I L Q V I Q R A E R L D V L E Q Q R 72
 ATCGGGCGGCTGGTGGAGCGGCTGGAGACCATGAGGCGGAATGTGATGGGGAACGGCCTG 420
 I G R L V E R L E T M R R N V M G N G L 92
 TCCCAGTGTCTGCTCTGCGGGGAGGTGCTGGGCTTCCTGGGCAGCTCGTCGGTGTCTGC 480
 S Q C L L C G E V L G F L G S S S V F C 112
 AAAGACTGCAGGAAGAAAGTCTGCACCAAATGTGGGATCGAGGCCTCCCCTGGCCAGAAG 540
 K D C R K K V C T K C G I E A S P G Q K 132
 CGGCCCCTGTGGCTGTGTAAGATCTGCAGTGAGCAAAGAGAGGTCTGGAAGAGGTCGGGG 600
 R P L W L C K I C S E Q R E V W K R S G 152
 GCCTGGTTCTACAAAGGGCTCCCCAAGTATATCTTGCCCCTGAAGACCCCTGGCCGAGCT 660
 A W F Y K G L P K Y I L P L K T P G R A 172
 GATGACCCCCACTTCCGACCTTTGCCCACGGAACCGGCAGAGCGAGAGCCCAGAAGCTCT 720
 D D P H F R P L P T E P A E R E P R S S 192

GAGACCAGCCGCATCTACACGTGGGCCCGAGGAAGAGTGGTTTCCAGTGACAGTGACAGT	780
E T S R I Y T W A R G R V V S S D S D S	212
GACTCGGATCTTAGCTCCTCCAGCCTAGAGGACAGACTCCCATCCACTGGGGTCAGGGAC	840
D S D L S S S S L E D R L P S T G V R D	232
CGGAAAGGCGACAAACCCTGGAAGGAGTCAGGTGGCAGCGTGGAGGCCCCCAGGATGGGG	900
R K G D K P W K E S G G S V E A P R M G	252
TTCACCCAACCCGCGGGCCACCTCTTTGGGTTGCAGAGCAGCCTGGCCAGTGGTGAGACG	960
F T Q P A G H L F G L Q S S L A S G E T	272
GGCACAGGCTCTGCTGACCCGCCAGGGGGAGGGACAGGCTCTGCTGACCCGCCAGGGGGA	1020
G T G S A D P P G G G T G S A D P P G G	292
CCCCGCCCCGGGCTGACCCGAAGGGCCCCGGTAAAAGACACACCTGGACGAGCCCCCGCT	1080
P R P G L T R R A P V K D T P G R A P A	312
GCTGACGCAGCTCCAGCAGGCCCCCTCCAGCTGCCTGGGCTGAGGTGTCTGGTGCCTGGAA	1140
A D A A P A G P S S C L G *	325
CAGACTTCCCTGTGGAGGATTCCCTGCCAGACCCTGCCCCGGCTCCTCCCTGACCGGTCCTT	1200
GTGCCCTCACCAGACACCCTGTTGGCCATGACTCAACAAACCAGTGTTGGGAGCCGTCTG	1260
CCTCCCCAGCTCAGTGCCTTTCTGCACCCCTTCTCTCCTGGGGAGCTGTCTGCATCCGCC	1320
ACCCCTCCAACCACTGCCCTCAGCCCCCGACCTTATTTATTACCCTCCCCTCCCACACC	1380
CCCAATCTACCTGGTGATGATTTTAAGTTTGCGCGTGTCTTGGGTTGGGCTGGGGGGTTT	1440
CCCACATGCAGTGTGAGAGGGGGCCGCCCGGTGGGGCTATCTCCGTTGCTATATTAATGGC	1500
AAGACTAAATGAAACCTAGGGCACGGCCTCCGAAGCTGCGTGTGGCCCCCTTAGAGGTGAG	1560
CATCAGAGCCAGAGCAGTGAGGGGGAGACTCACCCACCCTCTCCCTCTCCCTTCAGCTCT	1620
GGGAGGCAGGCGCAGTGCCCCCCTCCCATGGGCTGGCCCAGGACCGCGGGTGAAACCTGG	1680
GTCTGTTTAGTTTCTTTGGTTTTTGTATGTTTGTGTTTTTGACACAGTCTCGCTTTGT	1740
TGCCCAGGCTGGGGTGCAGTGGCACGATCGCGGCTCACTGCAACCTCCACCTCCCGGGCT	1800
CAAGCGATTCTCTCACCTCAGCCTCCTGAGTAGGTGGGATTACAGATGCCCGCCACCACA	1860
CCCAGTTAATTTTTGTATTTTTAGAAAGAGATGGGGTTTCTCCATGTTGGCCAGGCTGGTC	1920
TTGAACTCCTGGTCTCAAGTGATCCGCCCCGCTCGGCCTCCCAAAGTGCTGGGATTACAG	1980

GTGTGAGCCACCGCACCCAATCCTATTAGGTTTCTTTGAATCCCCTCATGGCCTGCCTGG 2040
 TTTTGGCTCAGCCTGTCTTCAGCTTGAGGAGCTGGGAAGCTCTGGTGGATGCTATGAACT 2100
 CACTTGCTGAAGAGCAGCGTTCAGGTGCATCCCCAGCCAGGGCACGTGGCTCCCTCAGCC 2160
 ATGAATTCACCTTCTCTTCAGGAGGTTTGGCTTGGCATGAAAATACTTCATTCAGAGTATG 2220
 GGCAAATGCTTCTGGAAAACCCTTCCCTGAAGAGAGAGAACGTGTGTGTGTGTGTGCGGTG 2280
 ATCACACCCCTCCCATCCTTCCCTGCCTCCTGCCCCAAACCCCGGGTTCCTGGGTCTGGAAG 2340
 GGCCTTCTCTCCAAGCTGGGAGCTCCTGGGCCCCCACCATTCACTTTTTGTCTTGCTGC 2400
 TGGCAAACAGTAAAGAAACTCACTTTCCTGTGGCACGTTATGCTTCAGAATTAAACAA 2460
 TGAAGATTAAAA 2472

Fig. 3

CL2:

GGCTCCTCATCTGGAACACCTCGGGTCACCCCCGACAACGGTGGTGGGAGGGAGAGCGGC 60
 CTCCTCCTCCCTGGTGGGGCCTGTCTGGGTGAAGCCCCTCTGTTCCCGAGGATCGTCCCA 120
 ACCCCCAGCCGGGTGCTCCGAGCCATGGCCGACACCACTCTTCGGCAGCGGGAATGATCAG 180
 TGGGTTTGCCCCAATGACCGGCAGCTTGCCCTTCGAGCCAAGCACTGACTGCACAGCAGT 240
 GAACAGGACCAACACAGTCCCTGGTCTTAAAGCACAGGTGGGCAGAGGCTGCAGACGGGC 300
 TGGTCGGTGCACACCTACCAGACGGAGAAGCAGAGGAGGAAGCAGCACCTCAGCCCGGCG 360
 GAGGTGGAGGCCATCCTGCAGGTATCCAGAGGGCAGAGCGGCTCGACGTCCTGGAGCAG 420
 CAGAGAATCGGGCGGCTGGTGGAGCGGCTGGAGACCATGAGGCGGAATGTGATGGGGAAC 480
 M R R N V M G N 8
 GGCCTGTCCCAGTGTCTGCTCTGCGGGGAGGTGCTGGGCTTCCTGGGCAGCTCGTCGGTG 540
 G L S Q C L L C G E V L G F L G S S S V 28
 TTCTGCAAAGACTGCAGGAAGAAAGTCTGCACCAAATGTGGGATCGAGGCCTCCCTGGC 600
 F C K D C R K K V C T K C G I E A S P G 48
 CAGAAGCGGCCCCTGTGGCTGTGTAAGATCTGCAGTGAGCAAAGAGAGGTCTGGAAGAGG 660
 Q K R P L W L C K I C S E Q R E V W K R 68

TCGGGGGCCTGGTTCTACAAAGGGCTCCCCAAGTATATCTTGCCCCTGAAGACCCCTGGC	720
S G A W F Y K G L P K Y I L P L K T P G	88
CGAGCTGATGACCCCCACTTCCGACCTTTGCCACGGAACCGGCAGAGCGAGAGCCCAGA	780
R A D D P H F R P L P T E P A E R E P R	108
AGCTCTGAGACCAGCCGCATCTACACGTGGGCCCCGAGGAAGAGTGGTTTCCAGTGACAGT	840
S S E T S R I Y T W A R G R V V S S D S	128
GACAGTGACTCGGATCTTAGCTCCTCCAGCCTAGAGGACAGACTCCCATCCACTGGGGTC	900
D S D S D L S S S S L E D R L P S T G V	148
AGGGACCGGAAAGGCGACAAACCCTGGAAGGAGTCAGGTGGCAGCGTGGAGGCCCCCAGG	960
R D R K G D K P W K E S G G S V E A P R	168
ATGGGGTTTACCCAACCCGCGGGCCACCTCTTTGGGTTGCAGAGCAGCCTGGCCAGTGGT	1020
M G F T Q P A G H L F G L Q S S L A S G	188
GAGACGGGCACAGGCTCTGCTGACCCGCCAGGGGGAGGGACAGGCTCTGCTGACCCGCCA	1080
E T G T G S A D P P G G G T G S A D P P	208
GGGGGACCCCGCCCCGGGCTGACCCGAAGGGCCCCGGTAAAAGACACACCTGGACGAGCC	1140
G G P R P G L T R R A P V K D T P G R A	228
CCCGCTGCTGACGCAGCTCCAGCAGGCCCTCCAGCTGCCTGGGCTGAGGTGTCTGGTGC	1200
P A A D A A P A G P S S C L G *	243
CTGGAACAGACTTCCCTGTGGAGGATTCCCTGCCAGACCCTGCCCCGGCTCCTCCCTGACCG	1260
GTCCTTGTGCCCTCACCAGACACCCTGTTGGCCATGACTCAACAAACCAGTGTGTTGGGAGC	1320
CGTCTGCCTCCCCAGCTCAGTGCCTTTCTGCACCCCTTCTCTCCTGGGGAGCTGTCTGCA	1380
TCCGCCACCCCCTCCAACCACTGCCCTCAGCCCCCGACCTTATTTATTACCCTCCCCTCC	1440
CACACCCCCAATCTACCTGGTGATGATTTTAAGTTTGCGCGTGTCTTGGGTTGGGCTGGG	1500
GGGTTTCCCACATGCAGTGTGAGAGGGGCGCCCGGTGGGGCTATCTCCGTTGCTATATT	1560
AATGGCAAGACTAAATGAAACCTAGGGCACGGCCTCCGAAGCTGCGTGTGGCCCCTTAGA	1620
GGTGAGCATCAGAGCCAGAGCAGTGAGGGGGGAGACTCACCCACCCTCTCCCTCTCCCTTC	1680
AGCTCTGGGAGGCAGGCGCAGTGCCCCCCTCCCATGGGCTGGCCCAGGACCGCGGGTGAA	1740

ACCTGGGTCTGTTTAGTTTCTTTGGTTTTTGTATGTTTGTGTTTTTGACACAGTCTCG 1800
 CTTTGTGCCCAGGCTGGGGTGCAGTGGCACGATCGCGGCTCACTGCAACCTCCACCTCC 1860
 CGGGCTCAAGCGATTCTCTCACCTCAGCCTCCTGAGTAGGTGGGATTACAGATGCCCCGCC 1920
 ACCACACCCAGTTAATTTTTGTATTTTTAGAAAGAGATGGGGTTTCTCCATGTTGGCCAGG 1980
 CTGGTCTTGAACTCCTGGTCTCAAGTGATCCGCCCCGCTCGGCCTCCCAAAGTGCTGGGA 2040
 TTACAGGTGTGAGCCACCGCACCCAATCCTATTAGGTTTCTTTGAATCCCCTCATGGCCT 2100
 GCCTGGTTTTTTGCTCAGCCTGTCTTCAGCTTGAGGAGCTGGGAAGCTCTGGTGGATGCTA 2160
 TGAACCTCACTTGCTGAAGAGCAGCGTTCAGGTGCATCCCCAGCCAGGGCACGTGGCTCCC 2220
 TCAGCCATGAATTCACCTCTCTTCAGGAGGTTTGGCTTGGCATGAAAATACTTCATTCAG 2280
 AGTATGGGCAAATGCTTCTGGAAAACCCTTCCCTGAAGAGAGAGAACGTGTGTGTGTGTG 2340
 TCGGTGATCACACCCTCCCATCCTTCCTGCCTCCTGCCCCAAACCCCGGGTTCCTGGGTC 2400
 TGGAAGGGCCTTCTCTCCAAGCTGGGAGCTCCTGGGCCCCCACCATTCACTTTTTGTCTT 2460
 TGCTGCTGGCAAACAGTAAAGAACTCACTTTCCTGTGGCACGTTATGCTTCAGAATTA 2520
 AAACAATGAAGATTAAAA 2538

Fig. 4

CL3:

GGCTCCTCATCTGGAACACCTCGGGTCACCCCCGACAACGGTGGTGGGAGGGAGAGCGGC 60
 CTCCTCCTCCCTGGTGGGGCCTGTCTGGGTGAAGCCCCTCTGTTCCCGAGGATCGTCCCA 120
 ACCCCCAGCCGGGTGCTCCGAGCCATGGCCGACACCATCTTCGGCAGCGGGAATGATCAG 180
 M A D T I F G S G N D Q 12
 TGGGTTTGCCCCAATGACCGGCAGCTTGCCCTTCGAGCCAAGCTGCAGACGGGCTGGTCC 240
 W V C P N D R Q L A L R A K L Q T G W S 32
 GTGCACACCTACCAGACGGAGAAGCAGAGGAGGAAGCAGCACCTCAGCCCGGCGGAGGTG 300
 V H T Y Q T E K Q R R K Q H L S P A E V 52
 GAGGCCATCCTGCAGGTATCCAGAGGGCAGAGCGGCTCGACGTCCTGGAGCAGCAGAGA 360
 E A I L Q V I Q R A E R L D V L E Q Q R 72

ATCGGGCGGCTGGTGGAGCGGCTGGAGACCATGAGGCGGAATGTGATGGGGAACGGCCTG	420
I G R L V E R L E T M R R N V M G N G L	92
TCCCAGTGTCTGCTCTGCGGGGAGGTGCTGGGCTTCCTGGGCAGCTCGTCGGTGTTCCTGC	480
S Q C L L C G E V L G F L G S S S V F C	112
AAAGACTGCAGGAAGAAAGTCTGCACCAAATGTGGGATCGAGGCCTCCCCTGGCCAGAAG	540
K D C R K K V C T K C G I E A S P G Q K	132
CGGCCCCCTGTGGCTGTGTAAGATCTGCAGTGAGCAAAGAGAGGTCTGGAAGAGGTCGGGG	600
R P L W L C K I C S E Q R E V W K R S G	152
GCCTGGTTCTACAAAGGGCTCCCCAAGTATATCTTGCCCCCTGAAGACCCCTGGCCGAGCT	660
A W F Y K G L P K Y I L P L K T P G R A	172
GATGACCCCCACTTCCGACCTTTGCCCACGGAACCGGCAGAGCGAGAGCCCAGAAGCTCT	720
D D P H F R P L P T E P A E R E P R S S	192
GAGACCAGCCGCATCTACACGTGGGCCCCGAGGAAGAGTCGTAGGAAGAAAGTGCTGATCC	780
E T S R I Y T W A R G R V V G R K C *	210
ACGCTGCAGCCTGGATGAGTCCTTGAAAACACCATGCGAAGTGGAAGAAGCCGGAGACGA	840
AAGGCCGCGTGTTGTGTGATCTCATCTATATGAGCAGTGGTTTCCAGTGACAGTGACAGT	900
GACTCGGATCTTAGCTCCTCCAGCCTAGAGGACAGACTCCCATCCACTGGGGTCAGGGAC	960
CGGAAAGGCGACAAACCCTGGAAGGAGTCAGGTGGCAGCGTGGAGGCCCCCAGGATGGGG	1020
TTCACCCAACCCGCGGGGCCACCTCTTTGGGTTGCAGAGCAGCCTGGCCAGTGGTGAGACG	1080
GGCACAGGCTCTGCTGACCCGCCAGGGGGAGGGACAGGCTCTGCTGACCCGCCAGGGGGA	1140
CCCCGCCCCGGGCTGACCCGAAGGGCCCCGGTAAAAGACACACCTGGACGAGCCCCCGCT	1200
GCTGACGCAGCTCCAGCAGGCCCTCCAGCTGCCTGGGCTGAGGTGTCTGGTGCCTGGAA	1260
CAGACTTCCCTGTGGAGGATTCCTGCCAGACCCTGCCCGGCTCCTCCCTGACCGGTCCTT	1320
GTGCCCTCACCAGACACCCTGTTGGCCATGACTCAACAAACCAGTGTTGGGAGCCGTCTG	1380
CCTCCCCAGCTCAGTGCCTTTCTGCACCCCTTCTCTCCTGGGGAGCTGTCTGCATCCGCC	1440
ACCCCCTCCAACCACTGCCCTCAGCCCCCGACCTTATTTATTACCCTCCCCTCCCACACC	1500
CCCAATCTACCTGGTGATGATTTTAAGTTTGCGCGTGTCTTGGGTTGGGCTGGGGGGTTT	1560

CCCACATGCAGTGTGAGAGGGGGCCCGGGTGGGGCTATCTCCGTTGCTATATTAATGGC -1620
 AAGACTAAATGAAACCTAGGGGCACGGCCTCCGAAGCTGCGTGTGGCCCCTTAGAGGTGAG 1680
 CATCAGAGCCAGAGCAGTGAGGGGGGAGACTCACCACCCCTCTCCCTCTCCCTTCAGCTCT 1740
 GGGAGGCAGGCGCAGTGCCCCCCTCCCATGGGCTGGCCCAGGACCGCGGGTGAAACCTGG 1800
 GTCTGTTTAGTTTCTTTGGTTTTTGTATGTTTGTGTTTTTGACACAGTCTCGCTTTGT 1860
 TGCCCAGGCTGGGGTGCAGTGGCACGATCGCGGCTCACTGCAACCTCCACCTCCCGGGCT 1920
 CAAGCGATTCTCTCACCTCAGCCTCCTGAGTAGGTGGGATTACAGATGCCCCGCCACCACA 1980
 CCCAGTTAATTTTTGTATTTTTTAGAAGAGATGGGGTTTCTCCATGTTGGCCAGGCTGGTC 2040
 TTGAACTCCTGGTCTCAAGTGATCCGCCCCGCTCGGCCTCCCAAAGTGCTGGGATTACAG 2100
 GTGTGAGCCACCGCACCCAATCCTATTAGGTTTCTTTGAATCCCCTCATGGCCTGCCTGG 2160
 TTTTGTCTCAGCCTGTCTTCAGCTTGAGGAGCTGGGAAGCTCTGGTGGATGCTATGAACT 2220
 CACTTGCTGAAGAGCAGCGTTCAGGTGCATCCCCAGCCAGGGCACGTGGCTCCCTCAGCC 2280
 ATGAATTCACTTCTCTTCAGGAGGTTTGGCTTGGCATGAAAATACTTCATTTCAGAGTATG 2340
 GGCAAATGCTTCTGGAAAACCCTTCCCTGAAGAGAGAGAACGTGTGTGTGTGTGTCGGTG 2400
 ATCACACCCTCCCATCCTTCCTGCCTCCTGCCCCAAACCCCGGGTTCCTGGGTCTGGAAG 2460
 GGCTTCTCTCCAAGCTGGGAGCTCCTGGGCCCCCACCATTCACTTTTTGTCTTGCTGC 2520
 TGGCAAACAGTAAAGAACTCACTTTCCTGTGGCACGTTATGCTTCAGAATTAAACAA 2580
 TGAAGATTAAAA 2592

Fig. 5

CL4:

GGCTCCTCATCTGGAACACCTCGGGTCACCCCCGACAACGGTGGTGGGAGGGAGAGCGGC 60
 CTCCTCCTCCCTGGTGGGGCCTGTCTGGGTGAAGCCCCTCTGTTCCCGAGGATCGTCCCA 120
 ACCCCCAGCCGGGTGCTCCGAGCCATGGCCGACACCATCTTCGGCAGCGGGAATGATCAG 180
 TGGGTTTGCCCCAATGACCGGCAGCTTGCCCTTCGAGCCAAGCACTGACTGCACAGCAGT 240
 GAACAGGACCAACACAGTCCCTGGTCTTAAAGCACAGGTGGGCAGAGGCTGCAGACGGGC 300
 TGGTCCGTGCACACCTACCAGACGGAGAAGCAGAGGAGGAAGCAGCACCTCAGCCCGGCG 360

GAGGTGGAGGCCATCCTGCAGGTCATCCAGAGGGCAGAGCGGCTCGACGTCCTGGAGCAG 420
 CAGAGAATCGGGCGGCTGGTGGAGCGGCTGGAGACCATGAGGCGGAATGTGATGGGGAAC 480
 M R R N V M G N 8
 GGCCTGTCCCAGTGTCTGCTCTGCGGGGAGGTGCTGGGCTTCCTGGGCAGCTCGTCGGTG 540
 G L S Q C L L C G E V L G F L G S S S V 28
 TTCTGCAAAGACTGCAGGAAGAAAGTCTGCACCAAATGTGGGATCGAGGCCTCCCCTGGC 600
 F C K D C R K K V C T K C G I E A S P G 48
 CAGAAGCGGGCCCCTGTGGCTGTGTAAGATCTGCAGTGAGCAAAGAGAGGTCTGGAAGAGG 660
 Q K R P L W L C K I C S E Q R E V W K R 68
 TCGGGGGCCTGGTTCTACAAAGGGCTCCCCAAGTATATCTTGCCCCTGAAGACCCCTGGC 720
 S G A W F Y K G L P K Y I L P L K T P G 88
 CGAGCTGATGACCCCCACTTCCGACCTTTGCCACGGAACCGGCAGAGCGAGAGCCCAGA 780
 R A D D P H F R P L P T E P A E R E P R 108
 AGCTCTGAGACCAGCCGCATCTACACGTGGGCCCCGAGGAAGAGTCGTAGGAAGAAAGTGC 840
 S S E T S R I Y T W A R G R V V G R K C 128
 TGATCCACGCTGCAGCCTGGATGAGTCCTTGAAAACACCATGCGAAGTGGAAGAAGCCGG 900
 AGACGAAAGGCCGCGTGTGTGTGATCTCATCTATATGAGCAGTGGTTTCCAGTGACAGT 960
 GACAGTGA CT CGGATCTTAGCTCCTCCAGCCTAGAGGACAGACTCCCATCCACTGGGGTC 1020
 AGGGACCGGAAAGGCGACAAACCCTGGAAGGAGTCAGGTGGCAGCGTGGAGGCCCCCAGG 1080
 ATGGGGTTACACCAACCCGCGGGCCACCTCTTTGGGTTGCAGAGCAGCCTGGCCAGTGGT 1140
 GAGACGGGCACAGGCTCTGCTGACCCGCCAGGGGGGGGGACAGGCTCTGCTGACCCGCCA 1200
 GGGGGACCCCGCCCCGGGCTGACCCGAAGGGCCCCGGTAAAAGACACACCTGGACGAGCC 1260
 CCCGCTGCTGACGCAGCTCCAGCAGGCCCCTCCAGCTGCCTGGGCTGAGGTGTCTGGTGC 1320
 CTGGAACAGACTTCCCTGTGGAGGATTCCTGCCAGACCCTGCCCGGCTCCTCCCTGACCG 1380
 GTCCTTGTGCCCTCACCAGACACCCTGTTGGCCATGACTCAACAAACCAGTGTGGGAGC 1440
 CGTCTGCCTCCCCAGCTCAGTGCCTTTCTGCACCCCTTCTCTCCTGGGGAGCTGTCTGCA 1500
 TCCGCCACCCCTCCAACCACTGCCCTCAGCCCCCGACCTTATTTATTACCCTCCCCTCC 1560

CACACCCCCAATCTACCTGGTGATGATTTTAAGTTTGCGCGTGTCTTGGGTTGGGCTGGG 1620
GGGTTTCCCACATGCAGTGTGAGAGGGGCGCCCGGTGGGGCTATCTCCGTTGCTATATT 1680
AATGGCAAGACTAAATGAAACCTAGGGGCACGGCCTCCGAAGCTGCGTGTGGCCCCTTAGA 1740
GGTGAGCATCAGAGCCAGAGCAGTGAGGGGGAGACTCACCCACCCTCTCCCTCTCCCTTC 1800
AGCTCTGGGAGGCAGGCGCAGTGCCCCCCTCCCATGGGCTGGCCCAGGACCGCGGGTGAA 1860
ACCTGGGTCTGTTTAGTTTCTTTGGTTTTTGTATGTTTGTTTGTGTTTGTGACACAGTCTCG 1920
CTTTGTTGCCCAGGCTGGGGTGCAGTGGCACGATCGCGGCTCACTGCAACCTCCACCTCC 1980
CGGGCTCAAGCGATTCTCTCACCTCAGCCTCCTGAGTAGGTGGGATTACAGATGCCCGCC 2040
ACCACACCCAGTTAATTTTTGTATTTTGTAGAAGAGATGGGGTTTCTCCATGTTGGCCAGG 2100
CTGGTCTTGAACCTCCTGGTCTCAAGTGATCCGCCCCGCTCGGCCTCCCAAAGTGCTGGGA 2160
TTACAGGTGTGAGCCACCGCACCCAATCCTATTAGGTTTCTTTGAATCCCCTCATGGCCT 2220
GCCTGGTTTTTTGCTCAGCCTGTCTTCAGCTTGAGGAGCTGGGAAGCTCTGGTGGATGCTA 2280
TGAACCTCACTTGCTGAAGAGCAGCGTTCAGGTGCATCCCCAGCCAGGGCACGTGGCTCCC 2340
TCAGCCATGAATTCACCTCTCTTCAGGAGGTTTGGCTTGGCATGAAAATACTTCATTGAG 2400
AGTATGGGCAAATGCTTCTGGAAAACCCTTCCCTGAAGAGAGAGAACGTGTGTGTGTGTG 2460
TCGGTGATCACACCCTCCCATCCTTCCTGCCTCCTGCCCCAAACCCCGGGTTCCTGGGTC 2520
TGGAAGGGCCTTCTCTCCAAGCTGGGAGCTCCTGGGCCCCCACCATTCACTTTTTGTCCT 2580
TGCTGCTGGCAAACAGTAAAGAACTCACTTTCCTGTGGCACGTTATGCTTCAGAATTA 2640
AAACAATGAAGATTAAAA 2658

Fig. 6

	1	15	30	45	60	75	90
1	1	15	30	45	60	75	90
2	1	15	30	45	60	75	90
3	1	15	30	45	60	75	90
4	1	15	30	45	60	75	90
5	1	15	30	45	60	75	90
6	1	15	30	45	60	75	90
1	1	15	30	45	60	75	90
2	1	15	30	45	60	75	90
3	1	15	30	45	60	75	90
4	1	15	30	45	60	75	90
5	1	15	30	45	60	75	90
6	1	15	30	45	60	75	90
1	1	15	30	45	60	75	90
2	1	15	30	45	60	75	90
3	1	15	30	45	60	75	90
4	1	15	30	45	60	75	90
5	1	15	30	45	60	75	90
6	1	15	30	45	60	75	90

Table 4

	181	195	196	210	211	225	226	240	241	255	256	270
1 NOC2	TGGGTTTGCCCCAAT	GACCGGCAGCTTGCC	CTTCGAGCCAAGC--	-----	-----	-----	-----	-----	-----	-----	-----	108
2 NL1	TGGGTTTGCCCCAAT	GACCGGCAGCTTGCC	CTTCGAGCCAAGC--	-----	-----	-----	-----	-----	-----	-----	-----	223
3 LC1	TGGGTTTGCCCCAAT	GACCGGCAGCTTGCC	CTTCGAGCCAAGC--	-----	-----	-----	-----	-----	-----	-----	-----	223
4 LC2	TGGGTTTGCCCCAAT	GACCGGCAGCTTGCC	CTTCGAGCCAAGCAC	TGACTGCACAGCAGT	GAACAGGACCAACAC	AGTCCCTGGTCTTAA						270
5 LC3	TGGGTTTGCCCCAAT	GACCGGCAGCTTGCC	CTTCGAGCCAAGC--	-----	-----	-----	-----	-----	-----	-----	-----	223
6 LC4	TGGGTTTGCCCCAAT	GACCGGCAGCTTGCC	CTTCGAGCCAAGCAC	TGACTGCACAGCAGT	GAACAGGACCAACAC	AGTCCCTGGTCTTAA						270
	271	285	286	300	301	315	316	330	331	345	346	360
1 NOC2	-----	-----	-----	TGCAGACGGGC	TGGTCCGTGCACACC	TACCAGACGGAGAAG	CAGAGGAGGAAGCAG	CACCTCAGCCCCGGCG				179
2 NL1	-----	-----	-----	TGCAGACGGGC	TGGTCCGTGCACACC	TACCAGACGGAGAAG	CAGAGGAGGAAGCAG	CACCTCAGCCCCGGCG				294
3 LC1	-----	-----	-----	TGCAGACGGGC	TGGTCCGTGCACACC	TACCAGACGGAGAAG	CAGAGGAGGAAGCAG	CACCTCAGCCCCGGCG				294
4 LC2	AGCACAGGTGGGCAG	AGGCTGCAGACGGGC	TGGTCCGTGCACACC	TACCAGACGGAGAAG	CAGAGGAGGAAGCAG	CACCTCAGCCCCGGCG						360
5 LC3	-----	-----	-----	TGCAGACGGGC	TGGTCCGTGCACACC	TACCAGACGGAGAAG	CAGAGGAGGAAGCAG	CACCTCAGCCCCGGCG				294
6 LC4	AGCACAGGTGGGCAG	AGGCTGCAGACGGGC	TGGTCCGTGCACACC	TACCAGACGGAGAAG	CAGAGGAGGAAGCAG	CACCTCAGCCCCGGCG						360
	361	375	376	390	391	405	406	420	421	435	436	450
1 NOC2	GAGGTGGAGGCCATC	CTGCAGGTCATCCAG	AGGGCAGAGCGGCTC	GACGTCCCTGGAGCAG	CAGAGAATCGGGCGG	CTGGTGAGCGGCTG						269
2 NL1	GAGGTGGAGGCCATC	CTGCAGGTCATCCAG	AGGGCAGAGCGGCTC	GACGTCCCTGGAGCAG	CAGAGAATCGGGCGG	CTGGTGAGCGGCTG						384

TTCTGCAAGACTGC

3	LC1	GAGGTGAGGCCATC	CTGCAGGTTCATCCAG	AGGCAGAGCGGGCTC	GACGTCTCTGGAGCAG	CAGAGAAATCGGGCGG	CTGGTGGAGCGGGCTG	384
4	LC2	GAGGTGAGGCCATC	CTGCAGGTTCATCCAG	AGGCAGAGCGGGCTC	GACGTCTCTGGAGCAG	CAGAGAAATCGGGCGG	CTGGTGGAGCGGGCTG	450
5	LC3	GAGGTGAGGCCATC	CTGCAGGTTCATCCAG	AGGCAGAGCGGGCTC	GACGTCTCTGGAGCAG	CAGAGAAATCGGGCGG	CTGGTGGAGCGGGCTG	384
6	LC4	GAGGTGAGGCCATC	CTGCAGGTTCATCCAG	AGGCAGAGCGGGCTC	GACGTCTCTGGAGCAG	CAGAGAAATCGGGCGG	CTGGTGGAGCGGGCTG	450
		451	465 466	480 481	495 496	510 511	525 526	540
1	NOC2	GAGACCATGAGGCGG	AATGTGATGGGGAAC	GGCCTGTCCCAGTGT	CTGCTCTGCGGGGAG	GTGCTGGGCTTCCTG	GGCAGCTCGTCGGTG	359
2	NL1	GAGACCATGAGGCGG	AATGTGATGGGGAAC	GGCCTGTCCCAGTGT	CTGCTCTGCGGGGAG	GTGCTGGGCTTCCTG	GGCAGCTCGTCGGTG	474
3	LC1	GAGACCATGAGGCGG	AATGTGATGGGGAAC	GGCCTGTCCCAGTGT	CTGCTCTGCGGGGAG	GTGCTGGGCTTCCTG	GGCAGCTCGTCGGTG	474
4	LC2	GAGACCATGAGGCGG	AATGTGATGGGGAAC	GGCCTGTCCCAGTGT	CTGCTCTGCGGGGAG	GTGCTGGGCTTCCTG	GGCAGCTCGTCGGTG	540
5	LC3	GAGACCATGAGGCGG	AATGTGATGGGGAAC	GGCCTGTCCCAGTGT	CTGCTCTGCGGGGAG	GTGCTGGGCTTCCTG	GGCAGCTCGTCGGTG	474
6	LC4	GAGACCATGAGGCGG	AATGTGATGGGGAAC	GGCCTGTCCCAGTGT	CTGCTCTGCGGGGAG	GTGCTGGGCTTCCTG	GGCAGCTCGTCGGTG	540
		541	555 556	570 571	585 586	600 601	615 616	630
1	NOC2	TTCTGCAAAGACTGC	AGGAAGAAAGTCTGC	ACCAAATGTGGGATC	GAGGCCTCCCCTGGC	CAGAAAGCGGCCCTG	TGGCTGTGTAAGATC	449
2	NL1	TTCTGCAAAGACTGC	AGGAAGAAAGTCTGC	ACCAAATGTGGGATC	GAGGCCTCCCCTGGC	CAGAAAGCGGCCCTG	-----	495
3	LC1	TTCTGCAAAGACTGC	AGGAAGAAAGTCTGC	ACCAAATGTGGGATC	GAGGCCTCCCCTGGC	CAGAAAGCGGCCCTG	TGGCTGTGTAAGATC	564
4	LC2	TTCTGCAAAGACTGC	AGGAAGAAAGTCTGC	ACCAAATGTGGGATC	GAGGCCTCCCCTGGC	CAGAAAGCGGCCCTG	TGGCTGTGTAAGATC	630
5	LC3	TTCTGCAAAGACTGC	AGGAAGAAAGTCTGC	ACCAAATGTGGGATC	GAGGCCTCCCCTGGC	CAGAAAGCGGCCCTG	TGGCTGTGTAAGATC	564
6	LC4	TTCTGCAAAGACTGC	AGGAAGAAAGTCTGC	ACCAAATGTGGGATC	GAGGCCTCCCCTGGC	CAGAAAGCGGCCCTG	TGGCTGTGTAAGATC	630

[illegible]

	631	645	646	660	661	675	676	690	691	705	706	720
1 NOC2	TGCAGTGAGCAAAGA	GAGGTCTGGAAGAGG	TCGGGGGCCTGGTTC	TACAAAGGGCTCCCC	AAGTATATCTTTGCC	CTGAAGACCCCTGGC	539					
2 NL1	-----	---	GTCTGGAAGAGG	TCGGGGGCCTGGTTC	TACAAAGGGCTCCCC	AAGTATATCTTTGCC	CTGAAGACCCCTGGC	567				
3 LC1	TGCAGTGAGCAAAGA	GAGGTCTGGAAGAGG	TCGGGGGCCTGGTTC	TACAAAGGGCTCCCC	AAGTATATCTTTGCC	CTGAAGACCCCTGGC	654					
4 LC2	TGCAGTGAGCAAAGA	GAGGTCTGGAAGAGG	TCGGGGGCCTGGTTC	TACAAAGGGCTCCCC	AAGTATATCTTTGCC	CTGAAGACCCCTGGC	720					
5 LC3	TGCAGTGAGCAAAGA	GAGGTCTGGAAGAGG	TCGGGGGCCTGGTTC	TACAAAGGGCTCCCC	AAGTATATCTTTGCC	CTGAAGACCCCTGGC	654					
6 LC4	TGCAGTGAGCAAAGA	GAGGTCTGGAAGAGG	TCGGGGGCCTGGTTC	TACAAAGGGCTCCCC	AAGTATATCTTTGCC	CTGAAGACCCCTGGC	720					

	721	735	736	750	751	765	766	780	781	795	796	810
1 NOC2	CGAGCTGATGACCCC	CAC	TTCCGACCTTTG	CCCACGGAAACCGGCA	GAGCGAGAGAGCCCAGA	AGCTCTGAGAGACCAGC	CGCATCTACACGTGG					629
2 NL1	CGAGCTGATGAGCCC	CAG	TTCCGACCTTTG	CCCACGGAAACCGGCA	GAGCGAGAGAGCCCAGA	AGCTCTGAGAGACCAGC	CGCATCTACACGTGG					657
3 LC1	CGAGCTGATGACCCC	CAC	TTCCGACCTTTG	CCCACGGAAACCGGCA	GAGCGAGAGAGCCCAGA	AGCTCTGAGAGACCAGC	CGCATCTACACGTGG					744
4 LC2	CGAGCTGATGACCCC	CAC	TTCCGACCTTTG	CCCACGGAAACCGGCA	GAGCGAGAGAGCCCAGA	AGCTCTGAGAGACCAGC	CGCATCTACACGTGG					810
5 LC3	CGAGCTGATGACCCC	CAC	TTCCGACCTTTG	CCCACGGAAACCGGCA	GAGCGAGAGAGCCCAGA	AGCTCTGAGAGACCAGC	CGCATCTACACGTGG					744
6 LC4	CGAGCTGATGACCCC	CAC	TTCCGACCTTTG	CCCACGGAAACCGGCA	GAGCGAGAGAGCCCAGA	AGCTCTGAGAGACCAGC	CGCATCTACACGTGG					810

	811	825 826	840 841	855 856	870 871	885 886	900
1 NOC2	GCCCGAGGAAGAGT-	-----	-----	-----	-----	-----	643
2 NL1	GCCCGAGGAAGAGT-	-----	-----	-----	-----	-----	671
3 LC1	GCCCGAGGAAGAGT-	-----	-----	-----	-----	-----	758

5	LC3	CTAGAGGACAGACTC	CCATCCACTGGGGTC	AGGGACCGGAAAGGC	GACAAACCCCTGGAAG	GAGTCAGGTGGCAGC	GTGGAGGCCCCCCCAGG	1014
6	LC4	CTAGAGGACAGACTC	CCATCCACTGGGGTC	AGGGACCGGAAAGGC	GACAAACCCCTGGAAG	GAGTCAGGTGGCAGC	GTGGAGGCCCCCCCAGG	1080
1	NOC2	ATGGGGTTCAACCCAC	CCGCCGGGCCACCTC	TCTGGGTGCCAGAGC	AGCCTGGCCAGTGGT	GAGACGGG-----	-----	847
2	NL1	ATGGGGTTCAACCCAA	CCCGCGGGCCACCTC	TTTGGGTTGCAGAGC	AGCCTGGCCAGTGGT	GAGACGGGCACAGGC	TCTGCTGACCCGCCA	897
3	LC1	ATGGGGTTCAACCCAA	CCCGCGGGCCACCTC	TTTGGGTTGCAGAGC	AGCCTGGCCAGTGGT	GAGACGGGCACAGGC	TCTGCTGACCCGCCA	984
4	LC2	ATGGGGTTCAACCCAA	CCCGCGGGCCACCTC	TTTGGGTTGCAGAGC	AGCCTGGCCAGTGGT	GAGACGGGCACAGGC	TCTGCTGACCCGCCA	1050
5	LC3	ATGGGGTTCAACCCAA	CCCGCGGGCCACCTC	TTTGGGTTGCAGAGC	AGCCTGGCCAGTGGT	GAGACGGGCACAGGC	TCTGCTGACCCGCCA	1104
6	LC4	ATGGGGTTCAACCCAA	CCCGCGGGCCACCTC	TTTGGGTTGCAGAGC	AGCCTGGCCAGTGGT	GAGACGGGCACAGGC	TCTGCTGACCCGCCA	1170
1	NOC2	-----GACAGGC	TCTGCTGACCCGCCA	GGGGGACCCCGCCCC	GGGCTGACCCCGAAGG	GCCCCGGTAAAAGAC	ACACCTGGACGAGCC	929
2	NL1	GGGGGAGGGACAGGC	TCTGCTGACCCGCCA	GGGGGACCCCGCCCC	GGGCTGACCCCGAAGG	GCCCCGGTAAAAGAC	ACACCTGGACGAGCC	987
3	LC1	GGGGGAGGGACAGGC	TCTGCTGACCCGCCA	GGGGGACCCCGCCCC	GGGCTGACCCCGAAGG	GCCCCGGTAAAAGAC	ACACCTGGACGAGCC	1074
4	LC2	GGGGGAGGGACAGGC	TCTGCTGACCCGCCA	GGGGGACCCCGCCCC	GGGCTGACCCCGAAGG	GCCCCGGTAAAAGAC	ACACCTGGACGAGCC	1140
5	LC3	GGGGGAGGGACAGGC	TCTGCTGACCCGCCA	GGGGGACCCCGCCCC	GGGCTGACCCCGAAGG	GCCCCGGTAAAAGAC	ACACCTGGACGAGCC	1194
6	LC4	GGGGGGGGGACAGGC	TCTGCTGACCCGCCA	GGGGGACCCCGCCCC	GGGCTGACCCCGAAGG	GCCCCGGTAAAAGAC	ACACCTGGACGAGCC	1260

1261	1275	1276	1290	1291	1305	1306	1320	1321	1335	1336	1350
1 NOC2	CCCGCTGCTGACGCA	GCTCCAGCAGGCCCC	TCCAGCTGCCCTGGGC	TGAGGTGCTGGTGC	CTGGAACAGACTTCC	CTGTGGAGGATTCCT	1019				
2 NL1	CCCGCTGCTGACGCA	GCTCCAGCAGGCCCC	TCCAGCTGCCCTGGGC	TGAGGTGCTGGTGC	CTGGAACAGACTTCC	CTGTGGAGGATTCCT	1077				
3 LC1	CCCGCTGCTGACGCA	GCTCCAGCAGGCCCC	TCCAGCTGCCCTGGGC	TGAGGTGCTGGTGC	CTGGAACAGACTTCC	CTGTGGAGGATTCCT	1164				
4 LC2	CCCGCTGCTGACGCA	GCTCCAGCAGGCCCC	TCCAGCTGCCCTGGGC	TGAGGTGCTGGTGC	CTGGAACAGACTTCC	CTGTGGAGGATTCCT	1230				
5 LC3	CCCGCTGCTGACGCA	GCTCCAGCAGGCCCC	TCCAGCTGCCCTGGGC	TGAGGTGCTGGTGC	CTGGAACAGACTTCC	CTGTGGAGGATTCCT	1284				
6 LC4	CCCGCTGCTGACGCA	GCTCCAGCAGGCCCC	TCCAGCTGCCCTGGGC	TGAGGTGCTGGTGC	CTGGAACAGACTTCC	CTGTGGAGGATTCCT	1350				
1351	1365	1366	1380	1381	1395	1396	1410	1411	1425	1426	1440
1 NOC2	GCCAGACCCCTGCCCG	GTCCTTGTGCCCTCA	CCAGACACCCCTGTTG	GCCATGACTCAACAA	ACCAGTGTGGGAGC	1109					
2 NL1	GCCAGACCCCTGCCCG	GTCCTTGTGCCCTCA	CCAGACACCCCTGTTG	GCCATGACTCAACAA	ACCAGTGTGGGAGC	1167					
3 LC1	GCCAGACCCCTGCCCG	GTCCTTGTGCCCTCA	CCAGACACCCCTGTTG	GCCATGACTCAACAA	ACCAGTGTGGGAGC	1254					
4 LC2	GCCAGACCCCTGCCCG	GTCCTTGTGCCCTCA	CCAGACACCCCTGTTG	GCCATGACTCAACAA	ACCAGTGTGGGAGC	1320					
5 LC3	GCCAGACCCCTGCCCG	GTCCTTGTGCCCTCA	CCAGACACCCCTGTTG	GCCATGACTCAACAA	ACCAGTGTGGGAGC	1374					
6 LC4	GCCAGACCCCTGCCCG	GTCCTTGTGCCCTCA	CCAGACACCCCTGTTG	GCCATGACTCAACAA	ACCAGTGTGGGAGC	1440					
1441	1455	1456	1470	1471	1485	1486	1500	1501	1515	1516	1530
1 NOC2	CGTCTGCCCTCCCCAG	CTCAGTGCCCTTCTG	CACCCCTTCTCTCCT	GGGAGCTGTCTGCA	TCCGCCACCCCTCC	AACCACTGCCCTCAG	1199				
2 NL1	CGTCTGCCCTCCCCAG	CTCAGTGCCCTTCTG	CACCCCTTCTCTCCT	GGGAGCTGTCTGCA	TCCGCCACCCCTCC	AACCACTGCCCTCAG	1257				
3 LC1	CGTCTGCCCTCCCCAG	CTCAGTGCCCTTCTG	CACCCCTTCTCTCCT	GGGAGCTGTCTGCA	TCCGCCACCCCTCC	AACCACTGCCCTCAG	1344				

4 LC2	CGTCTGCCTCCCCAG	CTCAGTGCCTTTCTG	CACCCCTTCTCTCCT	GGGAGCTGTCTGCA	TCCGCCACCCCTCC	AACCACTGCCCTCAG	1410
5 LC3	CGTCTGCCTCCCCAG	CTCAGTGCCTTTCTG	CACCCCTTCTCTCCT	GGGAGCTGTCTGCA	TCCGCCACCCCTCC	AACCACTGCCCTCAG	1464
6 LC4	CGTCTGCCTCCCCAG	CTCAGTGCCTTTCTG	CACCCCTTCTCTCCT	GGGAGCTGTCTGCA	TCCGCCACCCCTCC	AACCACTGCCCTCAG	1530
1 NOC2	CCCCCGACCTTATTT	ATTACCTCCCTCC	CACACCCCAATCTA	CCTGGTGATGATTTT	AAGTTTGGCGGTGC	TTGGGTGGGCTGGG	1289
2 NL1	CCCCCGACCTTATTT	ATTACCTCCCTCC	CACACCCCAATCTA	CCTGGTGATGATTTT	AAGTTTGGCGGTGC	TTGGGTGGGCTGGG	1347
3 LC1	CCCCCGACCTTATTT	ATTACCTCCCTCC	CACACCCCAATCTA	CCTGGTGATGATTTT	AAGTTTGGCGGTGC	TTGGGTGGGCTGGG	1434
4 LC2	CCCCCGACCTTATTT	ATTACCTCCCTCC	CACACCCCAATCTA	CCTGGTGATGATTTT	AAGTTTGGCGGTGC	TTGGGTGGGCTGGG	1500
5 LC3	CCCCCGACCTTATTT	ATTACCTCCCTCC	CACACCCCAATCTA	CCTGGTGATGATTTT	AAGTTTGGCGGTGC	TTGGGTGGGCTGGG	1554
6 LC4	CCCCCGACCTTATTT	ATTACCTCCCTCC	CACACCCCAATCTA	CCTGGTGATGATTTT	AAGTTTGGCGGTGC	TTGGGTGGGCTGGG	1620
1 NOC2	GGGTTTCCCACATGC	AGTGTGAGAGGGCC	GCCCGGTGGGGCTAT	CTCCGTTGCTATATT	AATGGCAAGACTAAA	TGAAACCTAGGGCAG	1379
2 NL1	GGGTTTCCCACATGC	AGTGTGAGAGGGCC	GCCCGGTGGGGCTAT	CTCCGTTGCTATATT	AATGGCAAGACTAAA	TGAAACCTAGGGCAG	1437
3 LC1	GGGTTTCCCACATGC	AGTGTGAGAGGGCC	GCCCGGTGGGGCTAT	CTCCGTTGCTATATT	AATGGCAAGACTAAA	TGAAACCTAGGGCAG	1524
4 LC2	GGGTTTCCCACATGC	AGTGTGAGAGGGCC	GCCCGGTGGGGCTAT	CTCCGTTGCTATATT	AATGGCAAGACTAAA	TGAAACCTAGGGCAG	1590
5 LC3	GGGTTTCCCACATGC	AGTGTGAGAGGGCC	GCCCGGTGGGGCTAT	CTCCGTTGCTATATT	AATGGCAAGACTAAA	TGAAACCTAGGGCAG	1644
6 LC4	GGGTTTCCCACATGC	AGTGTGAGAGGGCC	GCCCGGTGGGGCTAT	CTCCGTTGCTATATT	AATGGCAAGACTAAA	TGAAACCTAGGGCAG	1710

	1711	1725	1726	1740	1741	1755	1756	1770	1771	1785	1786	1800
1	NOC2	GGCCTCCGAAGCTGC	GTGTGGCCCCCTTAGA	GGTGAGCATCAGAGC	CAGAGCAGTGAGGGG	GAGACTCACCCACCC	TCTCCCTCTCCCTTC	1469				
2	NL1	GGCCTCCGAAGCTGC	GTGTGGCCCCCTTAGA	GGTGAGCATCAGAGC	CAGAGCAGTGAGGGG	GAGACTCACCCACCC	TCTCCCTCTCCCTTC	1527				
3	LC1	GGCCTCCGAAGCTGC	GTGTGGCCCCCTTAGA	GGTGAGCATCAGAGC	CAGAGCAGTGAGGGG	GAGACTCACCCACCC	TCTCCCTCTCCCTTC	1614				
4	LC2	GGCCTCCGAAGCTGC	GTGTGGCCCCCTTAGA	GGTGAGCATCAGAGC	CAGAGCAGTGAGGGG	GAGACTCACCCACCC	TCTCCCTCTCCCTTC	1680				
5	LC3	GGCCTCCGAAGCTGC	GTGTGGCCCCCTTAGA	GGTGAGCATCAGAGC	CAGAGCAGTGAGGGG	GAGACTCACCCACCC	TCTCCCTCTCCCTTC	1734				
6	LC4	GGCCTCCGAAGCTGC	GTGTGGCCCCCTTAGA	GGTGAGCATCAGAGC	CAGAGCAGTGAGGGG	GAGACTCACCCACCC	TCTCCCTCTCCCTTC	1800				

	1801	1815	1816	1830	1831	1845	1846	1860	1861	1875	1876	1890
1	NOC2	AGCTCTGGGAGGCAG	GCGCAGTGCCCCCCT	CCCATGGGCTGGCCC	AGGACCGGGGTGAA	ACCTGGGTCTGTTA	GTTTCTTTGGTTTTT	1559				
2	NL1	AGCTCTGGGAGGCAG	GCGCAGTGCCCCCCT	CCCATGGGCTGGCCC	AGGACCGGGGTGAA	ACCTGGGTCTGTTA	GTTTCTTTGGTTTTT	1617				
3	LC1	AGCTCTGGGAGGCAG	GCGCAGTGCCCCCCT	CCCATGGGCTGGCCC	AGGACCGGGGTGAA	ACCTGGGTCTGTTA	GTTTCTTTGGTTTTT	1704				
4	LC2	AGCTCTGGGAGGCAG	GCGCAGTGCCCCCCT	CCCATGGGCTGGCCC	AGGACCGGGGTGAA	ACCTGGGTCTGTTA	GTTTCTTTGGTTTTT	1770				
5	LC3	AGCTCTGGGAGGCAG	GCGCAGTGCCCCCCT	CCCATGGGCTGGCCC	AGGACCGGGGTGAA	ACCTGGGTCTGTTA	GTTTCTTTGGTTTTT	1824				
6	LC4	AGCTCTGGGAGGCAG	GCGCAGTGCCCCCCT	CCCATGGGCTGGCCC	AGGACCGGGGTGAA	ACCTGGGTCTGTTA	GTTTCTTTGGTTTTT	1890				

	1891	1905	1906	1920	1921	1935	1936	1950	1951	1965	1966	1980
1	NOC2	GATGTTTGTGTT	TTTGACACAGTCTCG	CTTTGTTGCCCAGGC	TGGGGTGCAGTGGCA	CGATCGGGGCTCACT	GCAACCTCCACCTCC	1649				
2	NL1	GATGTTTGTGTT	TTTGACACAGTCTCG	CTTTGTTGCCCAGGC	TGGGGTGCAGTGGCA	CGATCGGGGCTCACT	GCAACCTCCACCTCC	1707				

3	LC1	GTATGTTTGTGTT	TTTGACACAGTCTCG	CTTTGTTGCCAGGC	TGGGTGCAGTGGCA	CGATCGGGGCTCACT	GCAACCTCCACCTCC	1794
4	LC2	GTATGTTTGTGTT	TTTGACACAGTCTCG	CTTTGTTGCCAGGC	TGGGTGCAGTGGCA	CGATCGGGGCTCACT	GCAACCTCCACCTCC	1860
5	LC3	GTATGTTTGTGTT	TTTGACACAGTCTCG	CTTTGTTGCCAGGC	TGGGTGCAGTGGCA	CGATCGGGGCTCACT	GCAACCTCCACCTCC	1914
6	LC4	GTATGTTTGTGTT	TTTGACACAGTCTCG	CTTTGTTGCCAGGC	TGGGTGCAGTGGCA	CGATCGGGGCTCACT	GCAACCTCCACCTCC	1980

		1981	1995	1996	2010	2011	2025	2026	2040	2041	2055	2056	2070
1	NOC2	CGGGCTCAAGCGATT	CTCTCACCTCAGCCT	CCTGAGTAGGTGGGA	TTACAGATGCCCGCC	ACCACACCCAGTTAA	TTTTTGTATTTTAG	1739					
2	NL1	CGGGCTCAAGCGATT	CTCTCACCTCAGCCT	CCTGAGTAGGTGGGA	TTACAGATGCCCGCC	ACCACACCCAGTTAA	TTTTTGTATTTTAG	1797					
3	LC1	CGGGCTCAAGCGATT	CTCTCACCTCAGCCT	CCTGAGTAGGTGGGA	TTACAGATGCCCGCC	ACCACACCCAGTTAA	TTTTTGTATTTTAG	1884					
4	LC2	CGGGCTCAAGCGATT	CTCTCACCTCAGCCT	CCTGAGTAGGTGGGA	TTACAGATGCCCGCC	ACCACACCCAGTTAA	TTTTTGTATTTTAG	1950					
5	LC3	CGGGCTCAAGCGATT	CTCTCACCTCAGCCT	CCTGAGTAGGTGGGA	TTACAGATGCCCGCC	ACCACACCCAGTTAA	TTTTTGTATTTTAG	2004					
6	LC4	CGGGCTCAAGCGATT	CTCTCACCTCAGCCT	CCTGAGTAGGTGGGA	TTACAGATGCCCGCC	ACCACACCCAGTTAA	TTTTTGTATTTTAG	2070					

		2071	2085	2086	2100	2101	2115	2116	2130	2131	2145	2146	2160
1	NOC2	AAGAGATGGGGTTTC	TCCATGTTGGCCAGG	CTGGTCTTGAACCTCC	TGGTCTCAAGTGATC	CGCCCGCCTCGGCCT	CCCAAAGTCTGGGA	1829					
2	NL1	AAGAGATGGGGTTTC	TCCATGTTGGCCAGG	CTGGTCTTGAACCTCC	TGGTCTCAAGTGATC	CGCCCGCCTCGGCCT	CCCAAAGTCTGGGA	1887					
3	LC1	AAGAGATGGGGTTTC	TCCATGTTGGCCAGG	CTGGTCTTGAACCTCC	TGGTCTCAAGTGATC	CGCCCGCCTCGGCCT	CCCAAAGTCTGGGA	1974					
4	LC2	AAGAGATGGGGTTTC	TCCATGTTGGCCAGG	CTGGTCTTGAACCTCC	TGGTCTCAAGTGATC	CGCCCGCCTCGGCCT	CCCAAAGTCTGGGA	2040					

5 LC3	AAGAGATGGGGTTT	TCCATGTTGGCCAGG	CTGGTCTTGAACCTC	TGGTCTCAAGTGATC	CGCCCGCCTCGGCCT	CCCAAAGTGCTGGGA	2094
6 LC4	AAGAGATGGGGTTT	TCCATGTTGGCCAGG	CTGGTCTTGAACCTC	TGGTCTCAAGTGATC	CGCCCGCCTCGGCCT	CCCAAAGTGCTGGGA	2160
	2161	2175 2176	2190 2191	2205 2206	2220 2221	2235 2236	2250
1 NOC2	TTACAGGTGTGAGCC	ACCGCACC	CAATCCT	ATTAGGTTTCTTTGA	ATCCCCCTCATGSCCT	GCCTGGTTTTTTTGCTC	AGCCTGTCTTTCAGCT
2 NL1	TTACAGGTGTGAGCC	ACCGCACC	CAATCCT	ATTAGGTTTCTTTGA	ATCCCCCTCATGSCCT	GCCTGGTTTTTTTGCTC	AGCCTGTCTTTCAGCT
3 LC1	TTACAGGTGTGAGCC	ACCGCACC	CAATCCT	ATTAGGTTTCTTTGA	ATCCCCCTCATGSCCT	GCCTGGTTTTTTTGCTC	AGCCTGTCTTTCAGCT
4 LC2	TTACAGGTGTGAGCC	ACCGCACC	CAATCCT	ATTAGGTTTCTTTGA	ATCCCCCTCATGSCCT	GCCTGGTTTTTTTGCTC	AGCCTGTCTTTCAGCT
5 LC3	TTACAGGTGTGAGCC	ACCGCACC	CAATCCT	ATTAGGTTTCTTTGA	ATCCCCCTCATGSCCT	GCCTGGTTTTTTTGCTC	AGCCTGTCTTTCAGCT
6 LC4	TTACAGGTGTGAGCC	ACCGCACC	CAATCCT	ATTAGGTTTCTTTGA	ATCCCCCTCATGSCCT	GCCTGGTTTTTTTGCTC	AGCCTGTCTTTCAGCT
	2251	2265 2266	2280 2281	2295 2296	2310 2311	2325 2326	2340
1 NOC2	TGAGGAGCTGGGAAG	CTCTGGTGGATGCTA	TGAACTCACTTGCTG	AAGAGCAGCGTTTCAG	GTGCATCCCCCAGCCA	GGGCACGTGGCTCCC	2009
2 NL1	TGAGGAGCTGGGAAG	CTCTGGTGGATGCTA	TGAACTCACTTGCTG	AAGAGCAGCGTTTCAG	GTGCATCCCCCAGCCA	GGGCACGTGGCTCCC	2067
3 LC1	TGAGGAGCTGGGAAG	CTCTGGTGGATGCTA	TGAACTCACTTGCTG	AAGAGCAGCGTTTCAG	GTGCATCCCCCAGCCA	GGGCACGTGGCTCCC	2154
4 LC2	TGAGGAGCTGGGAAG	CTCTGGTGGATGCTA	TGAACTCACTTGCTG	AAGAGCAGCGTTTCAG	GTGCATCCCCCAGCCA	GGGCACGTGGCTCCC	2220
5 LC3	TGAGGAGCTGGGAAG	CTCTGGTGGATGCTA	TGAACTCACTTGCTG	AAGAGCAGCGTTTCAG	GTGCATCCCCCAGCCA	GGGCACGTGGCTCCC	2274
6 LC4	TGAGGAGCTGGGAAG	CTCTGGTGGATGCTA	TGAACTCACTTGCTG	AAGAGCAGCGTTTCAG	GTGCATCCCCCAGCCA	GGGCACGTGGCTCCC	2340

	2341	2355	2356	2370	2371	2385	2386	2400	2401	2415	2416	2430
1	NOC2	TCAGCCATGAATTCA	CTTCTCTTCAGGAGG	TTTGGCTTGGCATGA	AAATACTTCATTTCAG	AGTATGGGCAAATGC	TTCTGGAAAAACCCCTT	2099				
2	NL1	TCAGCCATGAATTCA	CTTCTCTTCAGGAGG	TTTGGCTTGGCATGA	AAATACTTCATTTCAG	AGTATGGGCAAATGC	TTCTGGAAAAACCCCTT	2157				
3	LC1	TCAGCCATGAATTCA	CTTCTCTTCAGGAGG	TTTGGCTTGGCATGA	AAATACTTCATTTCAG	AGTATGGGCAAATGC	TTCTGGAAAAACCCCTT	2244				
4	LC2	TCAGCCATGAATTCA	CTTCTCTTCAGGAGG	TTTGGCTTGGCATGA	AAATACTTCATTTCAG	AGTATGGGCAAATGC	TTCTGGAAAAACCCCTT	2310				
5	LC3	TCAGCCATGAATTCA	CTTCTCTTCAGGAGG	TTTGGCTTGGCATGA	AAATACTTCATTTCAG	AGTATGGGCAAATGC	TTCTGGAAAAACCCCTT	2364				
6	LC4	TCAGCCATGAATTCA	CTTCTCTTCAGGAGG	TTTGGCTTGGCATGA	AAATACTTCATTTCAG	AGTATGGGCAAATGC	TTCTGGAAAAACCCCTT	2430				
	2431	2445	2446	2460	2461	2475	2476	2490	2491	2505	2506	2520
1	NOC2	CCCTGAAGAGAGAGA	ACGTGTGTGTGTGTG	TCGGTGATCACACCC	TCCCATCCTTCCTGC	CTCCTGCCCCCAAACC	CCGGGTTCCCTGGGTC	2189				
2	NL1	CCCTGAAGAGAGAGA	ACGTGTGTGTGTGTG	TCGGTGATCACACCC	TCCCATCCTTCCTGC	CTCCTGCCCCCAAACC	CCGGGTTCCCTGGGTC	2247				
3	LC1	CCCTGAAGAGAGAGA	ACGTGTGTGTGTGTG	TCGGTGATCACACCC	TCCCATCCTTCCTGC	CTCCTGCCCCCAAACC	CCGGGTTCCCTGGGTC	2334				
4	LC2	CCCTGAAGAGAGAGA	ACGTGTGTGTGTGTG	TCGGTGATCACACCC	TCCCATCCTTCCTGC	CTCCTGCCCCCAAACC	CCGGGTTCCCTGGGTC	2400				
5	LC3	CCCTGAAGAGAGAGA	ACGTGTGTGTGTGTG	TCGGTGATCACACCC	TCCCATCCTTCCTGC	CTCCTGCCCCCAAACC	CCGGGTTCCCTGGGTC	2454				
6	LC4	CCCTGAAGAGAGAGA	ACGTGTGTGTGTGTG	TCGGTGATCACACCC	TCCCATCCTTCCTGC	CTCCTGCCCCCAAACC	CCGGGTTCCCTGGGTC	2520				
	2521	2535	2536	2550	2551	2565	2566	2580	2581	2595	2596	2610
1	NOC2	TGGAAGGGCCTTCTC	TCCAAGCTGGAGCT	CCTGGGCCCCCACC	TTCACCTTTTGTCTC	TGCTGCTGGCAAACA	GTAAGAAACTCACT	2279				
2	NL1	TGGAAGGGCCTTCTC	TCCAAGCTGGAGCT	CCTGGGCCCCCACC	TTCACCTTTTGTCTC	TGCTGCTGGCAAACA	GTAAGAAACTCACT	2337				

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3	LC1	TGGAAGGGCCTTCTC	TCCAAGCTGGGAGCT	CCTGGGCCCCCACC	TTCACTTTTGTGCT	TGCTGCTGGCAAACA	GTAAAGAACTCACT	2424
4	LC2	TGGAAGGGCCTTCTC	TCCAAGCTGGGAGCT	CCTGGGCCCCCACC	TTCACTTTTGTGCT	TGCTGCTGGCAAACA	GTAAAGAACTCACT	2490
5	LC3	TGGAAGGGCCTTCTC	TCCAAGCTGGGAGCT	CCTGGGCCCCCACC	TTCACTTTTGTGCT	TGCTGCTGGCAAACA	GTAAAGAACTCACT	2544
6	LC4	TGGAAGGGCCTTCTC	TCCAAGCTGGGAGCT	CCTGGGCCCCCACC	TTCACTTTTGTGCT	TGCTGCTGGCAAACA	GTAAAGAACTCACT	2610
2611		2625	2626	2640	2641	2655	2656	
1	NOC2	TTCCCTGTGGCAGT	TATGCTTCAGAATTA	AAACAATGAAGATTA	AAA	2327		
2	NL1	TTCCCTGTGGCAGT	TATGCTTCAGAATTA	AAACAATGAAGATTA	AAA	2385		
3	LC1	TTCCCTGTGGCAGT	TATGCTTCAGAATTA	AAACAATGAAGATTA	AAA	2472		
4	LC2	TTCCCTGTGGCAGT	TATGCTTCAGAATTA	AAACAATGAAGATTA	AAA	2538		
5	LC3	TTCCCTGTGGCAGT	TATGCTTCAGAATTA	AAACAATGAAGATTA	AAA	2592		
6	LC4	TTCCCTGTGGCAGT	TATGCTTCAGAATTA	AAACAATGAAGATTA	AAA	2658		

Fig. 7

1		15	16	30	31	45	46	60	61	75	76	90
1	NOC2	MADTIFGSGNDQWVC	PNDRLALRAKLQTG	WSVHTYQTEKQRRKQ	HLSPA EVEAILQVIQ	RAERLDVLEQQRIGR	LVERLETMRRNVMG					90
2	NL1	MADTIFGSGNDQWVC	PNDRLALRAKLQTG	WSVHTYQTEKQRRKQ	HLSPA EVEAILQVIQ	RAERLDVLEQQRIGR	LVERLETMRRNVMG					90
3	LC1	MADTIFGSGNDQWVC	PNDRLALRAKLQTG	WSVHTYQTEKQRRKQ	HLSPA EVEAILQVIQ	RAERLDVLEQQRIGR	LVERLETMRRNVMG					90

[illegible]

4 LC2 ----- 4 ----- MRN'VMGN ----- 8

5 LC3 MADTIFGSGNDQWVC PNDRQLALRAKLQTG WSVHTYQTEKQRRKQ HLSPAEVEAILQVIQ RAERLDVLEQQRIGR LVERLETMRNRNVMGN 90

6 LC4 -----MRRNVMMGN 8

91	105 106	120 121	135 136	150 151	165 166	180
91	105 106	120 121	135 136	150 151	165 166	180

1 NOC2 GLSQCLLCGEVLGFL GSSSVFCKDCRKKVC TKCGIEASPGQKRPL WLCKICSEQREVWKR SGAWFYKGLPKYILP LKTEGRADDPHERPL 180

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2 NL1  GLSQCLLCGEVLGEL  GSSSVFCKDCRK---  -----VWKR  SGAWFYKGLPKYILP  LKTPGRADEPQFRPW  151

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3 LCI GLSQCLLCGEVLGFL GSSSVFCKDCRKKVC TKGIEASPGQKRPL WLCKICSEQREVWKR SGAWFYKGLPKYILP LKTPGRADDPHERPL 180

4 LC2 GLSQCLLCGEVLGFL GSSSVFCKDCRKKVC TKCGIEASPGQKRPL WLCKICSEQREVWKR SGAWFYKGLPKYILP LKTPGRADDPHERPL 98

5 LC3 GLSQCLLCGEVLGFL GSSSVFCKDCRKKVC TKCGIEASPGQKRPL WLCKICSEQREVWKR SGAWFYKGLPKYILP LKTPGRADDPHERPL 180

6 LC4 GLSQCLLCGEVLGFL GSSSVFCKDCRKKVC TKCGIEASPGQKRPL WLCKICSEQREVWKR SGAWFYKGLPKYILP LKTPGRADDPHERPL 98

181	195 196	210 211	225 226	240 241	255 256	270
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1 NOC2 PTEPAEREPRSETS RIYTWARGRVSSDS DSDSDLSSSSLEDRL PSTGVRDRKGDKEPK ESGGSVEAPRMGFTH PPHLSGCQSSLASG 270

2 NLI PTEPAEREPRSSSETS RIYTWARGRVSSDS DSDSDLSSSSLEDRL PSTGVRDRKGDKPWK ESGGSVEAPRMGFTQ PAGHLEGLQSSLASG 241

3 LCI PTEPAEREPRSSSETS RIYTWARGRVSSDS DSDSDLSSSSLEDRL PSTGVDRKGDKPWK ESGGSVEAPRMGFTQ PAGHLEGLQSSLASG 270

4 LC3 PTEPAEREPRSSSETS RIYTWARGRVVGRKC ----- 210

5 LC4 PTEAEREPRSSSETS RIYTWARGRVVGRKC ----- 128

PSTGV8DRKGDKEWK ESAGSVEAPRMGFTQ PAGHLFGLQSSLASG
DSDSDI SSSSIENRIL

188

271	285	286	300	301	315	316	330
1 NOC2	ETGTGSADPPGG---	-----PRPGLTRR	APVKDTPGRAPAADA	APAGPSSCLG	315		
2 NL1	ETGTGSADPPGGGTG	SADPPGGPRPGLTRR	APVKDTPGRAPAADA	APAGPSSCLG	296		
3 LC1	ETGTGSADPPGGGTG	SADPPGGPRPGLTRR	APVKDTPGRAPAADA	APAGPSSCLG	325		
4 LC2	ETGTGSADPPGGGTG	SADPPGGPRPGLTRR	APVKDTPGRAPAADA	APAGPSSCLG	243		
5 LC3	-----	-----	-----	-----	210		
6 LC4	-----	-----	-----	-----	128		